

WHAT IS CLAIMED IS:

1. A high intensity infrared light, comprising:
a housing;
two or more LASER infrared diodes arranged inside said housing;
5 means comprising a heat sink for receiving heat from said LASER
infrared diodes;
means for collecting and transmitting the infrared light radiated by
said LASER infrared diodes;
means for receiving and combining the infrared light from said
10 optical transmitting means into a single beam of infrared light and to
radiate the beam of light from a light emitting surface; and
an aspheric lens situated such that the focal plane of said aspheric
lens is placed at the light emitting surface of said combining means,
wherein said aspheric lens is adapted to receive the beam of infrared light
15 emitted by the combining means and to collimate said beam of infrared
light.
2. The high intensity infrared light of claim 1, further including
means for controlling the electrical power applied to said LASER infrared
diodes.
- 20 3. The high intensity infrared light of claim 2 wherein said control
means is one of located inside said housing and located remotely from
said housing.
4. The high intensity infrared light of claim 1, further including
mounting points on said housing to facilitate installation.
- 25 5. The high intensity infrared light of claim 1, further including a
conical reflector positioned between said means for receiving and
combining infrared light and said aspheric lens to further collect and direct
the infrared light emitted by said means for receiving and combining
infrared light.
- 30 6. A high intensity infrared light, comprising:

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a housing, said housing including mounting points to facilitate installation;

two or more LASER infrared diodes arranged inside said housing;

means comprising a heat sink for receiving heat from said LASER

5 infrared diodes;

at least two optical transmission means coupled to said LASER infrared diodes and adapted to collect and transmit the infrared light radiated by said LASER infrared diodes;

an optical positioning plate adapted to receive and combine said
10 optical transmissions into a single beam of light and to radiate the beam of light from a light emitting surface;

an aspheric lens situated such that the focal plane of said aspheric lens is placed at the light emitting surface of said optical positioning plate, said aspheric lens adapted to receive the beam of infrared light emitted by
15 the optical positioning plate and to collimate said beam of infrared light; and

means for controlling the electrical power applied to said LASER infrared diodes, said means being one of located inside said housing and located remotely from said housing.

20 7. A process for providing high intensity infrared light, comprising: providing at least two LASER infrared diodes; removing heat from said LASER infrared diodes; transmitting infrared light emitted from said LASER infrared diodes through an optical transmission means;

25 combining the output of said optical transmission means into a single beam of infrared light;

radiating said beam of light from a light emitting surface;

positioning an aspheric lens such that the focal plane of said aspheric lens is situated at said light emitting surface; and

30 transmitting the beam of light through said aspheric lens.

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8. A process according to claim 7, further including the step of collecting the infrared light emitted by said light emitting surface and directing the infrared light toward said aspheric lens.

5 9. A process according to claim 7 wherein the LASER infrared diodes are conformed within a housing.

10 10. A process according to claim 9 wherein said housing includes mounting points to facilitate installation.

11. A process according to claim 7 wherein an optical positioning plate is used to combine the output of said optical transmission means.

10 12. A process according to claim 7 wherein a heat sink is used to remove the heat from said LASER infrared diodes.

13. A process for providing high intensity infrared light, comprising:

- 15 providing at least two LASER infrared diodes;
limiting the electrical power applied to said LASER infrared diodes;
removing heat from said LASER infrared diodes;
transmitting infrared light emitted from said LASER infrared diodes to optical transmission means;
combining the output of said optical transmission means into a
20 single beam of infrared light;
radiating said beam of light from a light emitting surface;
positioning an aspheric lens such that the focal plane of said aspheric lens is situated at said light emitting surface; and
transmitting the beam of light through said aspheric lens.

25 14. A process according to claim 13 wherein a control circuit is used to limit the electrical power applied to said LASER infrared diodes.

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